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Assessment of risks and prospects of employment and income of the rural population of Ukraine

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► **Abstract.** Employment, total household resources, in particular, income and expenditures of the rural population in any country are a direct reflection of well-being and a substantial criterion for socio-economic development. The purpose of the study is to identify risks, compare and determine the prospects for employment and income of the rural population of Ukraine. The methodological basis of the research is a systematic approach. Comparative analysis, graphical method, trend, index, correlation-regression analysis is used in the analytical study. Current conditions are analysed and trends in rural employment in Ukraine and their income level for 1991-2021 are determined. It was established that over the past 30 years, the socio-economic crisis in rural areas continues to worsen, which is manifested in increased unemployment and poverty. The main external and internal factors influencing the incomes of the rural population are identified and systematised. It is determined that the main influence is exerted by economic factors. Considering the recovery plan of Ukraine and other indicators, the level of employment, salaries, and incomes of the rural population is predicted. It is proved that ensuring employment and overcoming poverty should be based on the diversification of agricultural production and beyond agricultural activities. The main provisions and conclusions presented in the study can be used in the process of justifying and making managerial decisions by state management bodies in the development and implementation of an effective long-term national policy in the field of employment of the rural population of Ukraine, optimising approaches to the development of programmes to increase the income of the rural population

► **Keywords:** total resources; monetary income; number of employees; national policy measures

► Introduction

The level of well-being of the population depends on many economic, social, mental, and geographical factors. For Ukraine, this issue is particularly relevant, given that the standard of living of the Ukrainian people as of October 2022 is one of the lowest in Europe, and the standard of living of the population in rural areas is substantially lower than in urban areas, which creates negative economic and demographic trends (Ukraine took..., 2023). This potentially threatens the state's economic security and socio-political stability. Under martial law, the problem of ensuring employment and income stability of the population is becoming more relevant, especially in rural areas.

The problems of the welfare of the rural population have always been determined by the structure and size of total resources and monetary incomes, including wages, consumer spending on food and industrial goods, material goods, the availability and accessibility of social services: education, health, culture, sports, etc. That is why the laws of Ukraine "On the basic principles of State Agrarian Policy for the period up to 2015" (Law of Ukraine..., 2023), "On the goals of Sustainable development of Ukraine for the period up to 2030" (Resolution of the..., 2023), the National Economic Strategy for the period up to 2030 (Resolution of the..., 2023), etc. defined the main areas

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for solving problems of welfare in rural areas. This is, first of all, improving the living standards of farmers through employment and increasing wages, stimulating the consolidation of young professionals in rural areas, improving the pension provision of the rural population, improving the social development of the village, etc. In addition, Ukraine's desire to join the European community, gaining the status of a candidate member of the EU in June 2022, provides for ensuring sustainable socio-economic development of rural areas and improving the standard of living of the rural population.

Investigating the key parameters of the standard of living of rural households, V.R. Krupa & N.V. Martyniuk (2013) note positive trends in the growth of total resources and expenditures of the rural population. However, it is concluded that the standard of living of the rural population remains quite low. Currently, proper conditions for high-quality and full-fledged human development have not been created in rural areas, and this in turn leads to the depopulation of villages.

Yu.L. Kogatko (2015) also emphasises the importance of the problem of rural poverty and the need for its immediate solution. Summarising the author's study, it is noted that during the period he analysed, the level of poverty of the rural population increased, despite a slight increase in income, which in turn indicates an unsatisfactory state of implementation of state programmes to prevent poverty.

In the study of the quality of life of the rural population, the relationship between their employment and material well-being, O. Poplavska & O. Shevchuk (2020) note that the excess number of self-employed people in rural areas by almost three times that among the urban population indicates substantial risks in generating incomes of the rural population.

The analysis of the implementation of legislative measures to form an effective labour market in agriculture and the development of rural society, and the scale of discussion of these issues in scientific circles indicates that this is an urgent problem. Today it is characterised, first of all, by a very noticeable narrowing of the application of live labour in the field of agriculture, unemployment and impoverishment of the rural population, which is now partially solved only by labour in the personal sector of the rural population.

The purpose of the study from the standpoint of a systematic approach was to analyse the state, identify the basic factors of influence on employment and income of the rural population in Ukraine, assess the degree of their impact and predict it for the future, determine the main ways to increase the level of employment of the rural population, income, and quality of life in rural areas in Ukraine.

The following research tasks were formulated to achieve this goal:

- analyse current conditions and determine trends in employment and income of the rural population in Ukraine,
- identify and assess the main risks affecting the level of employment and income of the rural population,
- to predict the number of employed rural population and the level of their income in the conditions of wartime and post-war reconstruction of Ukraine.

► Literature review

Foreign and Ukrainian researchers offer various theoretical constructions regarding the study of employment and well-being of the population, in particular, rural ones.

Thus, under the concept of "income of the rural population" L.V. Salovska & V.O. Lypchanskyi (2004) is understood as a set of financial resources, other material resources, and intangible assets that rural residents receive for further spending to ensure a certain standard of living for a specific period, to preserve and accumulate their personal capital and household capital. The authors also note that the rural population of Ukraine, unlike the population of developed Western countries, is characterised by spending only actual revenues, explaining their opinion on the underdevelopment of the credit market. S.M. Khalatur (2015) complements the following features which summarised certain characteristics of the agri-food complex and identified certain aspects that do not contribute to increasing the income of the rural population, namely internal political instability; low investment rating of Ukraine; outdated material and technical base of agriculture; lack of skilled workers; low yield; soil depletion; insufficient state support, etc.

According to O.M. Borodina *et al.* (2020), the Ukrainian countryside is characterised by the extractive nature of economic development through "equality in poverty" against the background of limited access to quality sources of economic benefits. It is noted that an important source of income for farmers is the sale of products grown or produced on private farms. In addition, the authors note a steady trend of exceeding the income of the urban population in comparison with the rural population, which indicates the presence of elements of discrimination and unattractive employment in rural areas.

Differences in the incomes of urban and rural populations are also inherent in other countries, including developed countries, and are the subject of study by foreign researchers. In particular, F.Kramarz *et al.* (2022) devoted their attention to the problem of income inequality. In their paper, based on the analysis of income variance between territories, the authors state substantial differences between urban and rural areas in France. Although there has been a steady decline in such inequality in recent years, higher levels of inflation in rural areas offset this convergence.

Continuing the subject of employment and income levels, A.I. Suhostavets (2015) speaks about their relationship and interdependence. In particular, the researcher claims that the development of entrepreneurship depends on the growth of the incomes of farmers, who in turn are affected by the availability of jobs.

Yu.L. Kogatko (2015) focuses on the non-monetary characterisation of rural poverty. Namely, the lack of access to social facilities and infrastructure, and the quality of housing stock.

Consideration of various aspects of the formation of income and expenses of the rural population and their impact on entrepreneurship in different periods of independent Ukraine is devoted to the studies of such Ukrainian researchers as V.Ye. Krupin, A.O. Maksymenko (2012), K.I. Yakuba (2007; 2010), identifies the general theoretical aspects of the above-mentioned problem.

Features of rural employment and their main trends are examined by O.H. Bulavka *et al.* (2016) focusing on the relationship between the wages of agricultural workers and the level of employment in the industry. An important aspect of rural employment is identified in their research by K. Leshchenko & S. Leshchenko (2023), drawing attention to the fact that when developing practical recommendations on priority areas of employment development in rural areas, a necessary condition is the formation of areas of diversification of activities, considering the main types of non-agricultural employment. The study by V.P. Riabokon (2012) is devoted to the examination of various socioeconomic problems of rural employment. In the context of this paper, his conclusion about the existence of two interrelated problems in the rural labour market - socio-demographic and industrial - deserves attention is notable. According to the researcher, optimal conditions for living and reproduction in rural areas are possible only with a certain size of its population (socio-demographic aspect). Meanwhile, the production problem is that scientific and technological progress tirelessly leads to a reduction in the demand for labour in rural areas.

When determining the specific features of employment in rural areas H.S. Kukel *et al.* (2020) & A. Copola *et al.* (2020) focus on limited employment opportunities, low wages, increased social tension, and labour migration. It is noted that the most important source of income for rural households was a personal subsidiary farm, the share of which in the income structure was constantly growing. Thus, according to the results of their study, 82.6% of farmers considered income received from personal subsidiary farming to be a very important source of their income.

Determination of factors and assessment of the degree of their impact on employment in agriculture in Ukraine was conducted by N. Patyka *et al.* (2021). In particular, they proved that the most substantial socio-demographic factors influencing rural employment are the number of rural people aged 16-64 years and the demand for labour in agriculture. The most influential economic factor is labour productivity (production of gross output at constant prices in 2010 per 1 person employed in the agricultural sector).

Therewith, despite the presence of several scientific papers that cover various aspects of rural employment and the functioning of rural labour markets, rural incomes, and their interrelationships, the issues of determining the basic factors of influence on employment and incomes of the rural population in Ukraine, assessing the degree of their impact and forecast for the future, determining the main ways to increase the level of employment of the rural population, income, and quality of life in rural areas in Ukraine in the conditions of war and post-war recovery, considering European integration processes, require more detailed study.

► Materials and Methods

The methodological basis of the study is a systematic approach to the examination of the examined phenomena and processes and a dialectical method of cognition, which allowed comprehensively considering the processes related to the employment of the rural population of Ukraine and the influence of factors on the income of

peasants. The method of induction and deduction, abstraction, the ascent from the abstract to the concrete, and logical-theoretical generalisation was used to generalise the theoretical and methodological aspects of the study. Economic and statistical methods are used in analytical research (comparative analysis, average and relative values, trend analysis, graphical method, index, coefficient analysis, etc.) to diagnose the dynamics of economic indicators, to establish certain relationships, such as identity, similarity or difference between characteristics and facts.

Correlation regression and trend analysis were used to determine the dependencies in the formation of trends and predict the number of employed rural population. The forecast analysis of the financial resources of the rural population was conducted considering certain risks with reasonable scientific support. The method of expert assessments was used to determine the strength of the influence of factors on the resources of the rural population.

The expert survey was conducted in 2022 among individuals-residents of rural territorial communities in 6 regions of Ukraine (Transcarpathian, Chernihiv, Kharkiv, Cherkasy, Dnipropetrovsk, Odesa, two communities from each region), business entities (members of private farms, agricultural producers, in particular, farmers, intermediary organisations working in rural areas), officials of local self-government bodies. Specialists who were involved as experts were subject to general requirements: sufficient professional qualifications, awareness of the subject of the survey, and objectivity.

The purpose of the expert survey was to determine the factors influencing the resources of the rural population, identify risks, and assess their impact on revenue. The object of the expert survey is the income of the rural population, the subject of the study is factors and the degree of their influence on the level of income of the rural population. Conducting an expert survey provided for a complex of such papers: methodological nature – the formation of questions for respondents.

Notably, the survey involved investigating the opinion of participants regarding the priority of criteria that will be used in the forecasting process, factors of influence, and the degree of their influence on the income of the rural population. Organisational nature – directly conducting a survey. Therewith, a standard procedure was used: the study was conducted with an individual survey lasting about 5-10 minutes. The conditions for providing information were voluntary consent on a free basis, without disclosing data on the name of the territorial community, personal data of respondents, etc. Information processing, performing logical and arithmetic control of the primary information contained in the respondents' responses, and summarising the results were conducted using Microsoft Excel 2019. The survey was conducted by random selection, in which all objects of the general population had equal opportunities to get into the sample. The parameters of the sample population of interviewed experts correspond in their composition and structure to the general population of experts, which allows considering a sociological study representative and extrapolation of its results. The statistical error is 3.9%.

The abstract-logical method was used to generalise scientific and methodological approaches to examining the employment and income of the rural population of Ukraine and identifying ways to implement the national policy to ensure employment and stable income growth of the rural population; formulation of conclusions.

The study used statistical data from the state statistics service of Ukraine for 1999-2021. Collecting statistical information and database formation cover: the number of the employed rural population, the number of registered unemployed among the rural population, the unemployment rate in rural areas, demand for labour in agriculture, wages, household incomes in rural areas per month, per one, the number of the economically active rural population, gross domestic product (hereinafter – GDP) of the agricultural sector, consumer price indices, capital investment in agriculture, indicator of economic expectations, agricultural production, labour productivity, and other macroeconomic indicators.

► Results

One of the main principles of the functioning of the European Union is to ensure a decent life for the population. The desire of the people of Ukraine to integrate into the European community requires appropriate theoretical and methodological support for the development

of models, and mechanisms for rural development, and making the necessary decisions to improve the level of well-being of its residents. If the negative trends that have developed over the past decades in the development of rural areas, where a third of the population of Ukraine lives are not overcome, it will not be able to be a full member of the European Union. In this context, the low standard of living of the rural population, which leads to the migration of the most active and able-bodied part of it outside of Ukraine, increases the decline of rural areas.

In the course of the study, it was established that due to unemployment and the loss of opportunities for the rural population to exercise their constitutional right to work and decent pay for it, the problems of their poverty, despite the growth of total resources and monetary incomes, continue to increase. In particular, from 1999-2021, total resources per farm increased almost 37 times to UAH 13,417.59 (Fig. 1).

As part of the total resources of rural households, monetary incomes per person on average per month increased 72 times to UAH 11,889.69, and wages – more than 107 times to UAH 6,369.16. Notably, despite the increase in wages of the rural population, its share in the structure of resources of rural households, although increased, remains at a rather low level – 47.5% in 2021 (for comparison, the share of wages in the total income of the urban population in the same year was 69.5%).

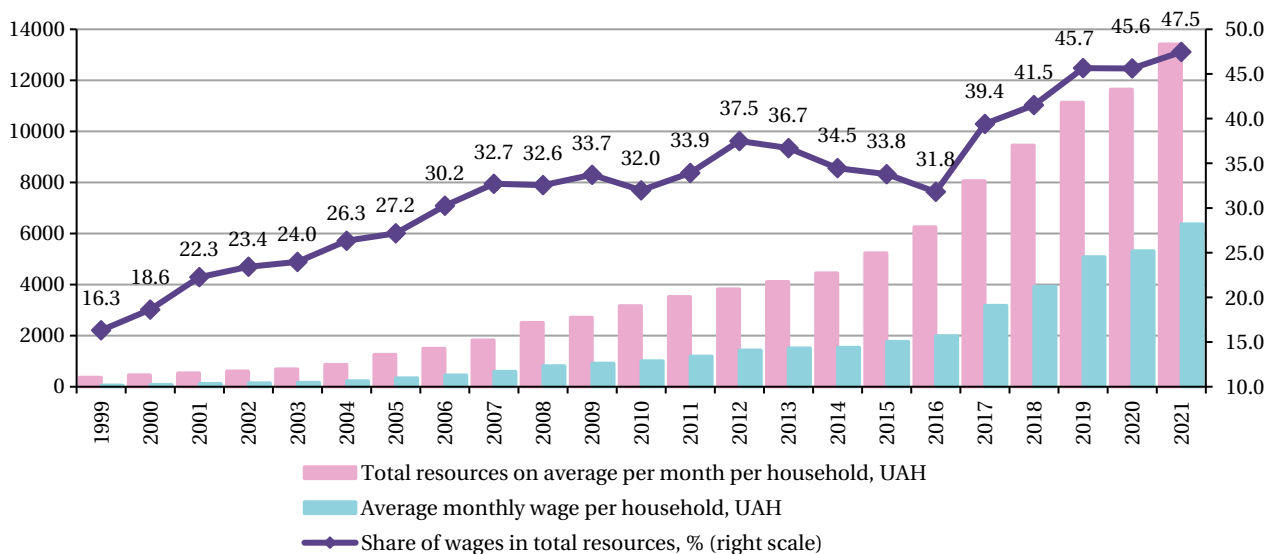


Figure 1. Dynamics and structure of total resources of rural households in Ukraine for the period of 1999-2021

Source: compiled according to the Employed population by age group... (2023)

Other substantial components of rural household resources are pensions, scholarships, allowances, and cash subsidies. A certain share of the rural population provides their needs, in particular, food, working on household and land plots for personal farming – according to statistics from the state statistics service of Ukraine, households use 6.2% of land for growing agricultural products for their own needs, and 6.6% for growing agricultural products, both for their own needs and for sale (Personal peasant households..., 2022). Such a low level of the share of wages in the total income of the rural population (less than half

indicates a difficult situation in the domestic rural labour market, namely, the lack of work, the disparity of its fundamental factors, the growth of unemployment among the rural population, the shortage of quality jobs, and insufficient provision of conditions for decent work.

Based on the results of a study of the number of employed rural population (Fig. 2) according to the state statistics service of Ukraine, during the period 2002-2021, there is a tendency to reduce the number of employed rural population by 45% to the level of 4,877 thousand people in 2021.

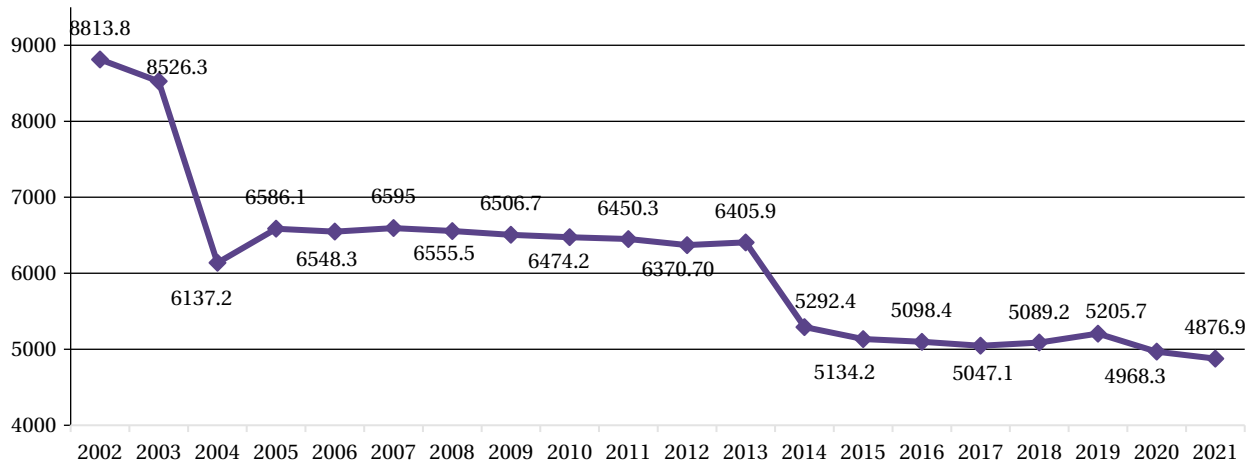


Figure 2. Number of employed rural population of Ukraine, 2002-2021, thousand people

Source: compiled according to the Employed population by age group... (2023)

In 2021, the employment rate of the rural population reached its lowest level since 2000 – 46.7%. This is the lowest figure in the last 20 years. The unemployment rate of the rural population in 2021 increased to 10.6%, and among people of working age – to 11.2%.

During the Russian-Ukrainian war, the situation worsened substantially. The lack of official statistics makes it impossible to estimate the actual level of employment, but its decline is substantial, and in some regions, even catastrophic. As a result of military operations, substantial migration of the rural population from the territories of military (combat) operations, and those that are under

temporary occupation, surrounded (blocked) both within the country and abroad, a substantial excess of the supply of labour over the demand for it in the rural labour market, a decrease in the number of economically active rural population due to the migration of young people to cities due to the lack of proper living conditions, employment, decent wages, and other reasons, a further deterioration in the level of employment of the rural population is expected.

Based on the data of the state statistics service of Ukraine on the dynamics of the number of employed rural population, its prospective volumes are calculated until 2030 (Table 1).

Table 1. Trends and forecast of the number of employed rural population of Ukraine in 2030, thousand people

Indicator	Actual number of employed rural population from 2002 to 2021										2021 to 2002, %
	2002	2005	2010	2015	2016	2017	2018	2019	2020	2021	
Employed rural population of Ukraine for the period, thousands of people	8814	6586	6474	5132	5098	5047	5089	5206	4968	4877	55.3
Projected number of the employed rural population of Ukraine in 2030											
Forecast type	Optimistic			Pessimistic					Realistic		
Forecast trend	polynomial (2 degrees) (option 1)		stepwise (option 2)		by average trend			linear		logarithmic	
Trend equation	$y = 5.6612x^2 - 280.54x + 8267.4$		$y = 8991.6x^{-0.187}$		average annual rate in 2002-2021 = 97.3%			$y = -161.66x + 7831.5$		$y = -1224\ln(x) + 8725.9$	
Coefficient of determination R ²	0.7797		0.799					0.7553		0.8177	
Projected number of the employed rural population of Ukraine, thousand people	4946		4760		3694			2982		4563	

Source: calculated according to the Employed population by age group... (2023)

Among the assumptions for the optimistic scenario, the following are identified: 1) the war will end in 2023; 2) at the end of the war, no one and nothing threatens the territorial integrity of Ukraine; 3) the “Marshall Plan” will be effective; 4) existing programmes for the development of the agricultural sector and rural areas

in the current and strategic periods; 5) the reform of the main state institutions have been conducted; 6) the implementation of measures to move towards EU membership. The pessimistic scenario accordingly assumes the absence of such reforms and the continuation of military operations after 2023.

According to two versions of the optimistic forecast, the number of employed rural population of Ukraine in 2030 will be 4,760-4,946 thousand people, while according to the pessimistic forecast, it will decrease to the level of 2,982-3,694 thousand people. The most realistic forecast, given the tightness of the stochastic relationship and the value of the coefficient of determination, is based on the logarithmic trend ($R^2=0.8177$), according to which in 2030 a decrease in the number of employed rural population to 4,563 thousand people, which is 6.4% less than in 2021 should be expected. The realistic scenario involves considering the existing indicators as of the forecast date, in particular, official statistics of the state statistics service on the dynamics of the number of employed rural population of Ukraine. The realistic scenario assumes that there is no progressive development of rural areas; without substantial increases in its financing; improvement of the situation in the rural labour market will be systematic; entrepreneurial activity does not substantially differ from the indicators of previous periods. However, if military operations continue after the end of 2023, even if the reforms are successfully implemented by European requirements and standards, this will substantially worsen the level of employment of the rural population. It is necessary to consistently adhere to the initiated measures of state

protectionist policy in strategic areas aimed at increasing the institutional capacity and resource sufficiency of rural united territorial communities (hereinafter referred to as UTC), systematic and consistent support for the market activity of micro- and small economic entities, the institutionalisation of employment of members of rural farms and other micro- and small forms of management to prevent socio-economic risks in the field of rural employment and the growth of their incomes. This will substantially increase the readiness and resilience of the rural population to risks.

Based on the data of the state statistics service of Ukraine on the dynamics of income of the rural population and considering the forecast of the number of employed rural population, programmes of the Ukraine recovery plan (2023), in particular, the agricultural complex, a forecast analysis of the financial resources of the rural population was performed, considering certain risks with reasonable scientific support.

First of all, the factors and degree of their impact on the resources of the rural population were determined. For this purpose, in 2022, a survey of members of rural UTC was conducted in 6 regions of Ukraine (Transcarpathian, Chernihiv, Kharkiv, Cherkasy, Dnipropetrovsk, Odesa). The survey results are shown in Table 2.

Table 2. Determining the strength of the influence of factors on the resources of the rural population according to the survey of communities in 6 regions of Ukraine for 2022

External factors of influence	Degree of influence (weighted average %)	Internal factors of influence	Degree of influence (weighted average %)
Financial assistance	2	Funds to relatives from military personnel	4
Material resources	7	Demographic processes	2
Total	9	Logistics networks	5
		Economic including production facilities	8
		from the cultivation of land plots	18
		budget	54
		Total	91
Total	100		

Source: calculated based on the results of an expert survey

As can be seen from Table 2, external factors such as financial assistance and material resources do not substantially affect the resources of rural residents. However, internal factors, namely economic ones, make up the main influence. Another important aspect of forecasting

is the identification of risks and the assessment of their impact on income. The method of interviewing residents of rural communities from the same 6 regions of Ukraine was also used to solve this problem. The main risks and the degree of their impact are shown in Table 3.

Table 3. Assessment of the impact of risks on rural incomes according to a survey of communities in 6 regions of Ukraine in April 2023

Risks from loss	Percentage of community residents exposed to these risks, %	The level of impact of risks on the corresponding incomes of rural residents, %
Jobs	22	8
Income from the land plot	88	18
Property	98	5
Personal transport	58	12
Breadwinner	75	68

Table 3, Continued

Risks from loss	Percentage of community residents exposed to these risks, %	The level of impact of risks on the corresponding incomes of rural residents, %
Social payments from Ukrainian and foreign sources	68	78
Changes in the regulatory framework for income taxation	95	18

Source: calculated based on the results of an expert survey

The income of the rural population are determined based on the following data. As of January 1, 2022, 12,474 thousand people, or 30.3% of the total population of Ukraine, lived in rural areas. As of April 2023, in Ukraine, 50% of the economic potential has been destroyed or substantially damaged, almost 35% of the territory has been invaded, and in other territories, there is a threat of further

destruction. In addition, when forecasting the incomes of the rural population, forecast estimates for the economic development of Ukraine were considered, in particular, the rate of changes in GDP, the consumer price index, the unemployment rate, etc. (Table 4).

The result of forecasting the income of the rural population is presented in Table 5.

Table 4. Initial data for calculations

Indicators	Actual values					Forecast		
	2018	2019	2020	2021	2022	2023	2024	2025
GDP rates, physical volume, Ukraine, %	103.5	103.2	96.2	103.4	-30.3	0.3	4.1	6.4
GDP rates, physical volume, agricultural sector, %	108.0	101.2	89.4	115.4	-30	-17	-	-
Consumer Price Index, %	109.8	104.1	105.0	110.0	126.6	118.7	110.4	106.7
Consolidated budget balance, % of GDP	-1.9	-2.2	-5.3	3.4	-17.5	-15.2	-9.0	-6.0
Unemployment rate, %	8.8	8.2	9.5	9.8	25.8	26.1	20.0	17.6
Rural unemployment rate, %	9.2	8.6	10.3	10.6	-	-	-	-
Indicator of economic sentiment for the first quarter, %	-	-	114.5	97.0	109.2	97.4	-	-

Source: calculated based on data from Structure of aggregate resources... (2023); Average monthly wages... (2023)

Table 5. Forecasting the level of salaries and incomes of the rural population (expert assessment according to the recovery plan of Ukraine and the indicators considered)

Indicators	Base period	Transition period	Forecast period		
	2021	2022	2023	2024	2025
Average monthly salary in agriculture, forestry, fishery, UAH.	12287	13061	15020	17724	21623
The annual increase in the average monthly salary in agriculture, forestry, and fishery, %	125.9	106.3	115.0	118.0	122.0
Household income in rural areas per month, per one, UAH.	13184	13474	15091	17505	21007
Annual income growth in rural areas, %	115.2	102.2	112	116	120
in particular, the salary of households in rural areas per month, per one, UAH.	6369	6770	7785	9187	12104

Source: calculated based on data from Structure of aggregate resources... (2023); Average monthly wages... (2023)

According to the results obtained, in 2025, compared to 2021, the incomes of the rural population will increase by 1.6 times, and wages – by 1.9 times. Such forecasting results also consider political, economic, and social aspects. In particular, Ukrainian society is determined exclusively to win the Russian-Ukrainian war, the war should end before 2024. This is exactly the assumption made by the president of Ukraine Vladimir Zelensky (Zelensky predicted the..., 2023). After the war, there is usually a rise, including in the economy. Prime Minister of Ukraine D.A. Shmygal

in Lugano presented a plan for the restoration of Ukraine (2023), which provides for attracting hundreds of billions of dollars in international aid. In addition, the European Commission at the summit on June 23, 2022, granted Ukraine the status of a candidate for EU membership (It's official! Ukraine..., 2022). This opens up substantial prospects for improving the social situation, in particular, solving certain social problems. Among the most relevant ones is an increase in the level of employment and income of the population, in particular, rural ones.

Wages should become the main source of personal income generation for farmers. An important strategic goal for the future should be to increase the level of remuneration of the employed rural population to the average in the economy and bring its share in the total income of the population to at least 65%.

Measures to increase the level of employment of the rural population, ensure adequate incomes and quality of life in rural areas should be aimed at diversifying agricultural and non-agricultural activities, introducing new industries, in particular, by stimulating the development of a diverse structure of employment of the rural population, considering the available resource potential and needs of rural areas, overcoming the monostructural employment of the rural population and low labour mobility of people of working age. In addition, it is important to find opportunities to create qualitatively new jobs with decent working conditions and wages, considering the specific features of the functioning of rural territorial communities. Promote the activation of the creation of small agricultural businesses, agricultural service cooperatives on the territory of each territorial community, and expand the business environment. Ultimately, as the practice has shown, under extreme conditions, such as a pandemic and war, micro- and small businesses have proved more viable, managed to quickly adapt to new operating conditions, and their contribution to food production and food security is vital.

Effective ways should be developed to motivate young professionals of popular professions to return or move to rural areas for permanent residence and work, providing them with grant support for the implementation of startups in agriculture when growing niche crops, organic products, processing raw materials, providing recreational services and other activities. It is worth considering the possibility and feasibility of transferring to organise micro- and small businesses, service cooperatives, including on a gratuitous basis, unused real estate objects of communal property and land plots on which they are located.

At all levels of management, it is necessary to conduct a complex of organisational, legal, and economic measures to create favourable conditions for the life of the rural population, recreate its labour potential, form motivational factors for the return of the evacuated rural population and temporarily displaced persons to their places of permanent residence, reduce the outflow of economically active population from rural areas. It is advisable to develop and implement long-term targeted programmes to support the rural population, primarily young people, through the provision of soft loans for education, housing, transport, and agricultural machinery, and the development of family entrepreneurship to encourage living in rural areas. It is necessary to conduct continuous awareness-raising on the benefits of protected productive employment using modern means of communication to reduce the share of rural employment in the informal sector. It is also important to form the social responsibility of agribusiness to employees, society, economic, social, and environmentally safe development of the village.

► Discussion

Theoretical, methodological, and practical aspects of employment and income of the rural population, identification of the relationship between these economic categories, identification of problems, and search for solutions to these problems are discussed in numerous scientific publications.

Thus, V.Ye. Krupin & A.O. Maksymenko (2012) explain the lower national level of income of the rural population in Ukraine by the monofunctional economic activity, which focuses on the production of agricultural products. Comparing the authors' conclusions, however, it is not possible to agree with their statement about the lack of alternatives to agricultural production. Now in rural areas, there are opportunities for the dynamic development of non-agrarian activities, such as trade, processing, and processing of agricultural raw materials, industrial production, handicrafts, agrotourism, employment in the social field, etc. However, there are also prospects in the agricultural sector, in particular, organic production, production of niche crops, and development of animal husbandry, in addition to conventional poultry, pig, and cattle breeding, the Ukrainian Village has substantial potential in development, for example, goat breeding, sheep breeding, etc. The problem of the development of the Ukrainian villages is not an insufficient number of sources of income, but a lack of entrepreneurial spirit, optimism, initiative, low motivation, insufficient awareness of the rural population about the available opportunities and areas for their implementation, insufficient skill level, etc.

The analysis of income levels, the role of EU assistance in ensuring fair income levels, and how different socio-economic and structural characteristics affect the economic viability of farms in Italy are examined by A. Coppola *et al.* (2020). Assessing this impact with and without EU assistance, the authors concluded that EU payments under the Common Agricultural Policy do not change the factors that affect the viability of the farm, but may change their weight. This is relevant for Ukraine, given the defined European integration course. Ultimately, by becoming a member of the EU, Ukraine will have to comply with all policies and comply with all EU directives, so it is important to know how this will affect the functioning of the agricultural sector and the well-being of rural residents.

Quantitative assessment of the impact of EU financial subsidies on the growth of agrotourism as a source of employment and income growth of the rural population, migration processes, and determination of socio-economic factors influencing these processes in Romania was examined by N. Galluzzo (2021). Based on the results of his study, the researcher concludes that financial subsidies allocated within the framework of the general agricultural policy have a positive impact on the development of agrotourism. In particular, at the time of the study, sparsely populated areas of Romania showed a substantial increase in agrotourism, and as a result – an increase in employment and income of the rural population. This confirms the proposals formulated in this study.

Regarding alternatives to employment in Agriculture M.M. Pityulych *et al.* (2021) also prove that an important area here can be the creation of rural green estates based

on their private farms. However, it is noted that it is unlikely that the income from such business activities will be sufficient to cover consumer spending and meet the needs of farmers at the proper level.

Investigating the problem of migration and reconfiguration of rural areas, M.I. Fonseca *et al.* (2021) concluded that migration processes in Portugal (internal – from city to village, external – from other countries to rural areas) generally contributed to the growth of incomes of the local rural population, primarily due to rent for rented housing and agricultural land. These migration processes have also contributed to the development of Portugal's rural areas themselves, primarily in their social field. The presence of migrants has contributed to the filling of local schools, the revival of the rural labour market, primarily in the educational sector, and the provision of various services. Such experience in developing rural areas, promoting employment, and increasing rural incomes can be useful for Ukraine, given the large number of internally displaced persons.

Measuring long-term trends in income inequality among U.S. citizens, C. Krolage *et al.* (2022) conclude that there is a relative decrease in the importance of wages for the population with high-income levels. The share of wages in the total resources of a relatively rich population tends to decrease, but income from capital investments and business activities increases. Therewith, for low-income citizens, wages continue to play an important role in the formation of total incomes. According to researchers, modern technologies and tax mechanisms may be potential reasons for the growth of income inequality in citizens.

The study of the situation in rural areas in Ukraine, including employment of the rural population, in the context of the decentralisation reform, was given its attention to N. Davydenko *et al.* (2022). The results of their study confirm the conclusions made in this study. In particular, those that relate to the decline in the level of employment of the rural population, although at a lower rate. This study refutes the hypothesis of achieving the rural development goals that were defined at the beginning of decentralisation and enshrined in the current legislation. The authors also conclude that there are no prospects for achieving these goals shortly.

According to the author's estimates and forecasts, Ukraine can effectively develop rural areas, and contribute to improving the well-being and quality of life of the rural population. However, the authors are convinced that this can be achieved only if all actions aimed at solving the problem of ensuring rural employment, increasing their incomes, and improving the quality of well-being and life should be integrated, conducted comprehensively, use effective tools for its implementation and if there is sufficient funding for regional development programmes.

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►Conclusions

It was established that the dynamics of the level of employment of the rural population in Ukraine have a negative trend. In particular, over the past 20 years, it has decreased by 9.2 percentage points from 55.9% in 2002 to 46.7% in 2021. Considering the maximum value of the rural employment rate of 63.5% in 2013, this decrease is 16.8 percentage points. The forecast of the number of employed rural population until 2030, even with an optimistic alternative, shows a tendency to further decline. This is due not only to a reduction in the number of the rural population, including economically active but also to a change in the structure of agricultural production, in particular, the substantial predominance of crop production, as a less labour-intensive industry, over animal husbandry (the ratio of 76% to 24% in the total structure of agricultural production). In addition, scientific and technological progress, namely automation, robotisation of workplaces, and individual operations, also leads to a decrease in employment directly in agriculture.

Modern factors that affect the income of the rural population should be divided into two groups: internal and external. According to the assessment, internal economic factors, in particular, budget and revenues from land cultivation, are the most influential. The estimate of monetary revenues until 2025 shows faster growth, which is primarily due to the potential receipt of hundreds of billions of dollars in international aid for the recovery of the Ukrainian economy in the post-war period. The scientific originality of the results obtained consists of substantiating theoretical and methodological provisions, scientific and methodological, and practical approaches to assessing and ensuring employment and income of the rural population of Ukraine in the conditions of wartime and post-war recovery. In particular, the scientific and methodological foundations of the study of the level of income of the rural population of Ukraine were improved in terms of determining factors and assessing the strength of their impact on the resources of the rural population, and methodological approaches to the quantitative analysis of the impact of factors on employment and income of the rural population of Ukraine were further developed. Promising areas of further research in this context are the development of effective national policy measures, justification of methods and mechanisms for their implementation to improve the situation in the rural labour market, ensure the growth of incomes of the rural population of Ukraine and promote the development of rural areas in general.

►Acknowledgements

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►Conflict of Interest

None.

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Оцінка ризиків та перспектив зайнятості й доходів сільського населення України

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► **Анотація.** Зайнятість, сукупні ресурси домогосподарств, зокрема доходи і витрати сільського населення у будь-якій країні є прямим віддзеркаленням добробуту і вагомим критерієм соціально-економічного розвитку. Мета статті – виокремити ризики, здійснити порівняння та визначити перспективи зайнятості й доходів сільського населення України. Методологічною основою дослідження є системний підхід. В аналітичних дослідженнях застосовано порівняльний аналіз, графічний метод, трендовий, індексний, кореляційно-регресійний аналізи. Проаналізовано сучасні умови та визначено тенденції зайнятості сільського населення в Україні та рівня його доходів за 1991-2021 рр. З'ясовано, що за останні 30 років соціально-економічна криза на селі продовжує посилюватися, що проявляється в скороченні рівня зайнятості, посиленні безробіття, зростання бідності. Ідентифіковано та систематизовано основні зовнішні та внутрішні чинники впливу на доходи сільського населення. Визначено, що основний вплив здійснюють економічні чинники. З урахуванням Плану відновлення України та інших показників прогнозовано рівень зайнятості, зарплат та доходів сільського населення. Доведено, що забезпечення зайнятості та подолання бідності повинно базуватися на диверсифікації сільськогосподарського виробництва та за межами аграрної діяльності. Основні положення і висновки, викладені у статті, можуть бути використані в процесі обґрунтування та прийняття управлінських рішень державними органами управління при розробленні та реалізації дієвої довгострокової державної політики у сфері зайнятості сільського населення України, оптимізації підходів до розробки програм підвищення доходів сільського населення

► **Ключові слова:** сукупні ресурси; грошові доходи; кількість зайнятих; заходи державної політики